REMARKS/ARGUMENTS

Preliminarily, Applicant wishes to point to the Revocation of Power of Attorney with New Power of Attorney and Change of Correspondence Address which was filed with the PTO on January 7, 2005. Applicant respectfully requests the updating of the correspondence address to Applicant's representative associated with Customer No. 30349, as well as attorney docket number for this application which is now **TC-04-05.**

A copy of the Revocation of Power of Attorney with New Power of Attorney and Change of Correspondence Address is enclosed for the Examiner's convenience.

Reconsideration is respectfully requested. Claim 1-20 are pending. Claims 1, 12-15 and 17 are amended to clarify the present invention in view of the Examiner's objections and/rejections thereto. Claims 18-20 are newly added.

For the reasons set forth below, Applicant respectfully submits that all pending claims 1-20 are now allowable.

I.   Indefiniteness Rejections

Claims 12-17 are rejected under 35 USC Section 112, second paragraph as being indefinite. See Office Action, p.2.

As can seen, to further clarify the scope of the dependent claims 12-17, claims 12-15 and 17 are now amended to replace references to level B1 with "a data link/layer". Accordingly, Applicant respectfully submits that dependent claims 12-17 overcome the indefiniteness rejections, and thus are now allowable.

II.   Anticipation Rejections

Claims 1-3, 5, 6, 9, 10-12, and 15-17 are rejected as anticipated by McRobert (European Patent Application No. 99301477). See Office Action p.3.

A.   Independent Claim 1

As understood, McRobert is directed to symbol errors. In particular, McRobert uses a symbol error detector or monitor 46, to detect symbol errors, a counter 48 which is incremented or decremented in response to detection of a symbol error, and a timer 54 such that if the number of symbol errors detected in an interval set by the timer exceeds a predetermined threshold, the rate of data transmission is changed from 100 mb/s to 10 mb/s.

As understood, McRobert discloses any error which is treated as a symbol error such that if the umber of symbol errors exceeds a predetermined number, the data transmission arte is reduced. See McRobert parag.23. Additionally, McRobert provides for several predetermined values for the error threshold, and means for choosing between them. See McRobert, parag. 24.

In contrast, the present invention is directed to diagnosing the type of link failure. Indeed, one embodiment of the present invention as set forth in the independent claim 1 is directed to a combination including steps of connecting the two devices together at least one of the devices including a plurality of registers, each register being adapted to store data about one or more types of said failure, running an auto-negotiation sequence, detecting said failure and passing signals relating to that failure to the relevant register(s), interrogating the or each register, and determining the type of said failure from a plurality of types of failure.

Again referring to the McRobert reference, the network repeater disclosed in McRobert, as understood, is configured to monitor a link for symbol errors and to determine an integrity of the link based on the detected number of symbol errors. Indeed, if the number of symbol errors is greater than a predetermined threshold, then the network repeater is configured to switch to a lower speed link. In this manner, as understood, McRobert is only interested in a single type of link failure, namely, symbol errors. Indeed, McRobert does not teach and is not configured to

handle (nor distinguish or otherwise identify) other link failures, such as, for example, loss of light when the link is not established.

Accordingly, Applicant traverses the Examiner's rejections, and respectfully submit that claim 1, and claims 2-17 dependent therefrom, are allowable.

B.   Dependent Claims

With respect to the Examiner's rejection of claim 2, as understood, McRobert does not determine the type of failure, and in addition, does not propose a course of action. Rather, McRobert simply downgrades the speed, which for many link failure types, would not provide any solution to the problem.

Accordingly, Applicant traverses the Examiner's rejection of claim 2 and respectfully submits that claim 2 is allowable.

With respect to the Examiner's rejection of claim 3, as understood, McRobert discloses an LED on the unit that contains the failure. Indeed, while McRobert discloses that an interrupt is sent to the remote network manager, McRobert does not disclose or otherwise suggest that the failure is displayed nor a course of action proposed.

Accordingly, Applicant traverses the Examiner's rejection and respectfully submits that claim 3 is allowable.

With respect to claims 5, 10-12 and 15-17, Applicant traverses the Examiner's rejection and respectfully submits that, at least for the same reasons as set forth above in distinguishing independent claim 1, claims 5, 10-12 and 15-17 are allowable.

With respect to claim 6, the portion of McRobert to which the Examiner refers has nothing to do with "describing the monitoring and error reporting of synchronization problems". Rather, as understood, this portion of McRobert discloses a retransmission of a packet following a collision (normal Ethernet operation). Indeed, as understood, this portion of McRobert does

not disclose or suggest failure comprising loss of synchronization during auto-negotiation. While McRobert discloses that auto negotiation will be provided on a repeater port, it fails to disclose or suggest the detection of loss of synchronization errors.

Accordingly, Applicant traverses the Examiner's rejection of claim 6, and respectfully submit that claim 6 is allowable.

With respect to claim 9, it appears that the Examiners rejections directed to claim 9 actually refers to McRobert Figure 2, blocks 74 and 63 (rather than 76 and 63 as asserted in the Office Action). As understood, this figures does not disclose the process of failing auto negotiation. Indeed, following the start of auto negotiation in block 60, a check is performed in block 61 for "a link established". If the answer is Yes, then the auto negotiation is complete and link status change is monitored in blocks 72 and 74.

Accordingly, Applicant traverses the Examiner's rejection of claim 9, and respectfully submit that claim 9 is allowable.

III.   Obviousness Rejections

Claims 4, 7, 8, 13 and 14 are rejected as obvious over McRobert reference. See Office Action, p.8.

Applicant herein renews all of the arguments set forth above in distinguishing independent claim 1 from the McRobert reference, and accordingly, Applicant traverses the Examiner's rejections of dependent claims 4, 7, 8, 13 and 14, and respectfully submit that these claims are now allowable.

IV.   New Claims 18-20

Newly added claim 18 is directed to a system for diagnosing, in a network comprising two devices connectable by a link, the type of failure of the connection between the devices, comprising: at least two device configured to connect together, at least one of the devices

including a plurality of registers, each register being adapted to store data about one or more types of said failure; wherein the system is configured to run an auto-negotiation sequence; detect said failure and passing signals relating to that failure to the relevant register(s); interrogate the or each register; and determine the type of said failure from a plurality of types of failure.

Furthermore, newly added claim 20 is directed to a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for diagnosing, in a network comprising two devices connectable by a link, the type of failure of the connection between the devices, said method comprising the steps of: connecting the two devices together at least one of the devices including a plurality of registers, each register being adapted to store data about one or more types of said failure, running an auto-negotiation sequence, detecting said failure and passing signals relating to that failure to the relevant register(s), interrogating the or each register, and determining the type of said failure from a plurality of types of failure.

Accordingly, Applicant herein renews all of the arguments set forth above in distinguishing the claimed invention set forth in claim 1, and respectfully submits that at least for the same reasons, claims 18-20 are allowable.

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CONCLUSION

For the foregoing reasons, Applicant respectfully submits that all pending claims 1-20 are now allowable.

If the Examiner deems a telephonic discussion of the pending application would be helpful in the examination of the pending claims, Applicant invites the Examiner to contact the Applicant's representative at (510) 652-6418.

Respectfully submitted,

JACSON & CO.. LLP

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By:

Seong-Kun Oh, Esq.
Reg. No. 48,210

Attorneys for Applicant
Customer No. 30349

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